

METHOD, APPARATUS AND GAMING SET

FOR USE IN A PROGRESSIVE GAME

Cross-Reference to Related Applications

This application is a continuation of and claims priority to U.S. Patent
5 Application Serial No. 10/003,679, which was filed on October 29, 2001 and issued
on July 29, 2003 as U.S. Patent No. 6,599,187, and which is a continuation of U.S.
Patent Application Serial No. 09/369,678, which was filed on August 5, 1999 and
issued on October 30, 2001 as U.S. Patent No. 6,309,298, and which is a
continuation-in-part of U.S. Patent Application Serial No. 08/898,553, which was
10 filed on July 22, 1997 and issued on August 31, 1999 as U.S. Patent No. 5,944,606.
The complete disclosures of the above-identified patent applications are hereby
incorporated by reference for all purposes.

Field of the Invention

This invention relates generally to gaming. More particularly, the
15 invention relates to a method, apparatus and gaming set for use in a progressive pull-
tab game.

Background

"Pull-tab" is a game of chance, commonly played in casinos and
taverns. In a pull-tab game, participants purchase pull-tab cards from a large fixed
20 pool or set. The game ends when the entire pool of cards has been purchased. The
cards in a set are marked at the time of manufacture with various patterns of symbols
or indicia. The indicia on the otherwise identical cards is covered when the cards are

sold so that neither the operator nor player can see the indicia before the card is purchased. A certain number of cards in each set are manufactured with a pattern of indicia indicating that they are winners. Such winning cards will have a predetermined pay-off value: \$1, \$5, \$1,000, etc. Other cards may have zero value.

5 The set of cards may be stored and distributed electronically as well as in printed form. In this case, the cards are stored and distributed in a predetermined order, just as with printed cards. Likewise, certain of the electronic cards are coded as winners and losers. Until the cards are dispensed or displayed, it is not possible for a player to determine whether a particular electronic card is a winner, and, if so, its
10 pay-off value.

 The winning and losing cards are randomly mixed in the pool and externally identical. Therefore, the value of a card is not ascertainable prior to its opening or display upon purchase. Whether winner or loser, the value of each card is dependent only on the pattern of indicia printed thereon or associated therewith and
15 therefore is predetermined at the time the cards are printed or generated. Because the number of winning cards in a set, and the value of each, is known, the operator of the game knows the total pay-out for a game in advance, as do the players.

 In one variation of the standard pull-tab games, there are multiple separate indicia on or associated with each card. With these "multi-play" cards,
20 which may have twenty plays on a single card, the player has many opportunities to win. With multiple plays on each card, each multi-play card may be a winner by including at least one winning play. The pay-off values for multi-play cards,

however, are typically much smaller because of the many winning combinations. Multi-play cards may be sold at higher prices than single-play cards.

Games of chance can be described as either progressive or non-progressive. In non-progressive games, such as traditional pull-tab, participants play
5 for a chance to win a predetermined prize, i.e., one of the winning cards. Progressive games, in contrast, involve a jackpot or prize that grows during the play of the game. Many state numbers lotteries, for instance, fall into the progressive category because the prize increases over time as more players participate. During the operation of a progressive game, a portion of each player's purchase is dedicated to the prize. Thus,
10 the prize grows until the winning numbers are selected and the game ends. Some slot machines also offer a progressive jackpot.

While progressive games typically offer participants greater excitement and appeal because of the opportunity to win a larger prize, such games are more complex to operate. Moreover, not all games of chance lend themselves to
15 a progressive implementation. Pull-tab, for instance, has not been amenable for implementation in a progressive game because of the use of a pre-printed or pre-generated set of cards with predetermined winning amounts.

Because of the popularity of traditional slot machines, which provide the player with an immediate visual indication of the outcome of a play, it is
20 generally desirable to offer a pull-tab game which resembles a slot game. One principle way this has been achieved is by providing an automatic reader to read the cards as they are dispensed. Another way this has been achieved is by providing a

separate reader to read the cards upon insertion of the cards into the reader by a player. In the case of electronic tickets, the status of the card is determined when it is displayed. In any case, the resulting play can then be depicted visually on a video display in a fashion replicating the appearance of a slot machine. When this type of system is used with a multi-play pull-tab card, a sequence of plays can be completed without interruption. However, because this system still uses pre-printed cards or pre-generated cards with predetermined values, it has not been amenable for implementation in a progressive format.

Summary of the Invention

The present invention includes systems, methods and gaming sets for progressive games, including progressive pull-tab games. The gaming sets include a plurality of plays, which in some embodiments take the form of pull-tab cards, and in some embodiments are electronic plays. The plays are associated with indicia of redemption value, with the set of plays including at least one jackpot play of underdetermined total value prior to dispensing of the play, and at least one set of plays with a predetermined value.

Many other features, advantages and additional objects of the present invention will be apparent to those versed in the art upon making reference to the detailed description which follows and the accompanying sheets of drawings in which a preferred embodiment incorporating the principles of this invention is disclosed as an illustrative example only.

Brief Description of the Drawings

Fig. 1a shows a backside of a pull-tab card constructed according to the present invention.

Fig. 1b shows a front side of the pull-tab card of Fig. 1a.

5 Fig. 1c shows the front side of the pull-tab card of Fig. 1a, showing lifted serrated flaps.

Fig. 2 shows a pull-tab card with a scratch-off coating suitable for use in the present invention.

10 Fig. 3 is a perspective view of a pull-tab gaming set according to the present invention.

Figs. 4a-b show a winning card and a jackpot card according to the present invention.

Fig. 5 is a sign for use with the present invention.

15 Fig. 6 is a progressive pull-tab gaming system constructed according to the present invention.

Fig. 7 shows a multi-play pull-tab card constructed according to the present invention.

Fig. 8 shows a dispensing unit according to the present invention.

Detailed Description of the Preferred Embodiment

A printed pull-tab card for use with the present invention is shown generally at 10 in Figs. 1a-c. Card 10 includes a front side 12 and a back side 14, with a selectively revealable gaming section 16 disposed on the front side. The gaming section, in the preferred embodiment, includes three serrated flaps 18 that can be lifted to reveal underlying indicia 20 of the value of the card. Although serrated regions are preferred, any other suitable selectively revealable region could be used, including, among others, scratch-off coatings, such as shown in Fig. 2, or a separable two-part card, such as shown in U.S. Patent No. 5,348,299 which is incorporated herein by reference.

Pull-tab cards according to the present invention can also be implemented and dispensed electronically, as described in U.S. Patent No. 5,324,035 which is incorporated herein by reference. Electronic cards or tickets are generally designed to mimic the format and appearance of printed cards. Such electronic cards are typically distributed through electronic display terminals with touch-screens to allow a player to control exposure of the gaming region.

In the context of the preferred embodiment of the present invention, pull-tab cards or plays, such as card 10, typically form part of a pull-tab gaming set as shown generally at 30 in Fig. 3. With electronic tickets, the set or pool is, of course, stored electronically. Card 10 also typically includes a printed gaming code 22, which is different for each set and therefore can be used to distinguish cards from

different sets. Set 30 preferably includes three classes of cards. The first class, which usually constitutes the majority of the cards, is losers. Losing cards, such as card 10 in Fig. 1c, are those that have no redemption value. The losing cards may be considered as having a predetermined value, even though that value is \$0.

5 The second class of cards in set 30 is winners, which have fixed non-zero values. Winner cards include an indicia of the amount of their redemption value. For example, a card in the winner class may have a value of \$100, such as winner card 40 shown in Fig. 4a. Thus, a player receiving that card could redeem it with the operator of the game for \$100. In some cases a single card may have more
10 than one set of winning indicia. For instance, the top line of symbols in Fig. 4a could represent a winning combination in addition to the second line of symbols. In the preferred embodiment, there are a number of different sub-classes within the winner class, and each sub-class has a different fixed value. In a typical set consisting of 4,000 cards selling for \$1 each, there might be 100 cards in the \$1 sub-class, 20 cards
15 in the \$10 sub-class, 10 cards in the \$50 sub-class, 5 cards in the \$100 sub-class and so on. Most commonly, there are fewer cards in the higher value sub-classes and more cards in the lower value sub-classes, although this is not essential.

 The third class in set 30 is the jackpot. In the preferred embodiment, there is only one jackpot card, shown at 42 in Fig. 4b, although there could be two or
20 more jackpot cards as desired. The jackpot card has an undetermined redemption value. Thus, until the jackpot card is received by a player, it is not possible to determine what its value will be. The value of the jackpot card is determined only

during the play of the game, as will be described below. In the preferred embodiment of the present invention, as will be described in more detail below, the value of the jackpot card will go up during the play of the game. It is this increasing jackpot card value that provides the progressive aspect of the present invention.

5 As mentioned above, each card in the set includes an indicia of its value. With printed cards, as shown in Fig. 1a, the back side of each card is preferably printed with a chart listing the indicia for each sub-class of winning cards as well as the jackpot class. The chart also lists the number of cards in each class and sub-class, and the value associated with each sub-class of the winning class. Any
10 card bearing an indicia other than those listed on the chart is a loser. Thus, a player receiving a card will tear open the serrated section to reveal the gaming section and indicia printed therein. By comparing the indicia in the gaming section with those listed on the chart, the player can determine the class/sub-class of the card. For all cards other than the jackpot card, the player will also know the value of the card.
15 The jackpot card has indicia from which the player can identify it as a jackpot card, but has an undetermined redemption value. In the case of electronic cards, the "backside" of the card can be displayed next to the front on the display screen.

 A sign or poster 32, such as shown in Fig. 5, is normally provided in the general area where the cards are being dispensed to allow players to monitor
20 what winning cards remain to be distributed. The sign includes a listing of each of the winning cards, and, as each winning card is redeemed, the operator of the game covers one of the listings for that sub-class of card, as shown at 34. Although this

procedure is not required, it allows a player to glance at the sign and determine the number and type of winning cards remaining. Such a sign may also be displayed on an electronic display screen with or separate from a display of an electronic ticket.

In a variation on the pull-tab cards described above, the present invention could be implemented utilizing multi-play pull-tab cards such as shown at 10' in Fig. 7. Card 10' would typically include a front side 12', a back side 14' and a selectively revealable gaming section 16'. The gaming section is disposed beneath a serrated flap 18' that can be lifted to reveal the gaming section. The principal difference between card 10' and previously described card 10 is that card 10' includes multiple plays, rather than the single play provided by card 10. Specifically, in the version depicted, card 10' provides twenty different indicia in the form of groups 20' of nine symbols each, where each group represents a play. For each group, the player can evaluate whether a winning combination is present. The symbols of each group may be read horizontally, vertically or diagonally to evaluate whether a winning combination is present, further enhancing the play.

Either card 10 or 10' may be configured to be machine readable. As shown in Fig. 7, this may take the form of a bar code 22' printed on the card. Alternatively, the machine may be able to read the groups of indicia directly. However, one of the benefits of the bar code is the difficulty of tampering which is not provided if the indicia are scanned directly. Preferably, the machine readable portion is not readable until the card is opened, thereby reducing the risk that an unscrupulous proprietor would search for and remove winning cards. One example

of a suitable card is shown in U.S. Patent No. 5,290,033, which is incorporated herein by reference. Of course in the case of electronic cards, the electronic data constituting the card provides the device with sufficient information to determine whether the card is a winner or not.

5 A system for conducting a progressive pull-tab game according to the present invention is shown generally at 100 in Fig. 6. System 100 typically includes one or more dispensing units, such as unit 102, configured to dispense pull-tab cards. In the preferred embodiment, unit 102 is a Lucky Pick Model No. LP1, sold by Over and Under Int'l Inc., of Clarkston, Washington, with a serial communications chip
10 added to enable communication with a computer as will be subsequently described, although any other pull-tab dispensing unit could be made suitable for use in the present invention with minor modification. Each unit is essentially identical and the subsequent description will be made with particular reference to unit 102. A typical unit, such as unit 102, would be able to hold approximately 4,000 pull-tab cards.
15 This amount may represent an entire pull-tab gaming set, or a set may fill two or more units. Unit 102 holds cards in four racks 104, and the cards in each rack are visible through an overlying window 106. Having the cards visible allows the player to evaluate approximately how many cards remain. By comparing the number of remaining cards with the number of remaining winning cards as indicated on poster
20 32, as described above, the player is able to estimate the odds of receiving a winning card.

Beneath each window is a button 108 that the player can push to dispense a card from the above stack. Providing the player the ability to select the stacks gives the player some sense of control over the game. After the player selects the stack, the card is dispensed into a bin 110 disposed beneath the buttons. Players
5 pay for cards using a bill validator 112 built into the unit. A display 114 is provided to inform the player of how much credit they have remaining from money put into the bill validator. Thus, a player can feed the bill validator \$20 to purchase twenty tickets at once. The cards, however, are only dispensed one at a time as the player selects and pushes one of the four buttons.

10 In the case of electronic cards, the cards are dispensed at terminals equipped with electronic display screens. The terminals typically allow a user to select among different games and provide the user with game information such as the number of plays remaining in the current pool or set of plays. Because the tickets or plays are stored and presented electronically, the terminal can determine whether or
15 not any particular ticket is a winner. In addition to presenting an image indicative of the value or pay out for the card in the course of dispensing, the terminal can also directly report winnings and can print a validation receipt for redemption by a cashier for winning cards. Typical display screen images for electronically dispensed cards are shown in Figs. 14-17 in U.S. Patent No. 5,324,035, incorporated by
20 reference above.

System 100 includes a control system 120 to which each of the units are operatively connected, such as by a serial cable 122. In the preferred

embodiment, control system 120 is an IBM compatible computer running software known as Progressive Pull-Tab Version 1.3, produced by Paradise Valley Electronics, of Moscow, ID, that allows the control system to communicate with each of the dispensing units, although any suitable software could be used. Control
5 system 120 monitors the quantity of pull-tab cards dispensed by the dispensing units. In the preferred embodiment, each unit signals the control system when a player purchases cards and when a card is dispensed. Also in the preferred embodiment, the control system is physically separated from the dispensing units, but it could just as well be incorporated in one of the dispensing units, or each unit could have its
10 own control system. As an additional alternative, cards could be directly sold and distributed by a cashier or operator.

System 100 also includes a jackpot display 130 operatively connected to the control system to display a jackpot value. In the preferred embodiment, the software on the control system keeps track of the jackpot value and sends
15 information to the jackpot display. The redemption value of the jackpot card is determined by the jackpot value. In the preferred embodiment of the invention, the jackpot is set to a predetermined value at the beginning of the game, that is, when a new set of cards is loaded into the system to be dispensed. As the control system receives signals indicating sale of cards, it increases the jackpot value. For instance,
20 the jackpot value may be incremented by five-percent of the price of each card, as they are sold. Although the jackpot value is incremented for every card sale in the preferred embodiment, it could be incremented less frequently, or additionally on

occurrence of other events. For example, the jackpot could be incremented once for every five card sales or once every fifteen minutes, or both. In the preferred embodiment, the jackpot value is incremented by and stored in software in the computer, but the jackpot could be as simple as a mechanical counter that was
5 incremented for every ticket sale or some fraction thereof.

An alternative embodiment of a dispensing unit according to the present invention is shown generally at 102' in Fig. 8. Dispensing unit 102' is generally similar to dispensing unit 102 and includes racks (not shown) to hold a stock of pull-tab cards from which the player can select using buttons 108'. Most
10 significantly, dispensing unit 102' also includes an electronic video display 116' and a card reader 118'. The card reader is configured to receive a card from a player. By reading some type of marking or property of the card, the card reader is able to determine whether the card is a winner, loser or jackpot card. Of course, with electronic cards, no reader is required. After the card is read, the dispensing unit then
15 displays a pattern of images on the video display corresponding to the character of the card. The image may be a representation of a printed card based upon the card read by the reader or the electronic card. Preferably, the display mimics the appearance of the wheels on a slot machine so that the player is given the look and feel of playing slots. The display may be a video display, actual spinning wheels, or
20 other types of display. A pull-down arm, such as arm 120', may also be attached to the machine to actuate the reading of a card, when it is pulled, similar to an arm on a slot machine, to simulate the play of a slot machine. Alternatively, the card may be

read automatically upon insertion, or upon actuation of some other trigger. This type of system is particularly beneficial when implemented with the multi-play cards because the player can run through a sequence of plays without purchasing or inserting additional cards. Preferably the jackpot value would be displayed on the video display in addition to or alternatively to jackpot display 130.

Although the above-described alternative embodiment has been described in the context of using separate cards, it could also be implemented utilizing a roll of pull-tab cards, such as described in U.S. Patent Nos. 5,348,299, 5,377,975, 5,487,544 and 5,487,544 to Clapper, all of which are hereby incorporated by reference. In this case the card reader may be internal to the dispenser and simply read the card or backing strip prior to expelling the pull-tab card. Preferably, the card reader is incorporated in the dispensing unit so that the dispensing unit can be configured to provide game credits for winning cards, thereby allowing the play to continue. Alternatively, the dispensing unit could issue cash or vouchers redeemable with a cashier for winning cards. As an additional alternative, the pull-tab cards could be dispensed by a dispensing unit, and a separate card reading unit, similar to dispensing unit 102' above but without the dispensing capability, could be used to redeem the cards.

As described above, a new game starts when a set of pull-tab cards, such as set 30 described above, is loaded, or in the case of electronic cards, transmitted, into one or more dispensing units and the jackpot is set to a predetermined value. A pull-tab card is then sold and dispensed to a player from a

dispensing unit and the control system increments and displays the value of the progressive jackpot. Of course, the cards could be sold and dispensed by a human operator as well, in which case the operator would signal the control system to indicate sales of cards. The sequence of displaying, dispensing and incrementing is
5 then repeated until the jackpot card is dispensed. When the jackpot card is dispensed, the player receiving that card is awarded the progressive jackpot.

Players receiving winning cards before or after the jackpot card is dispensed are able to redeem them for the predetermined value of the card. Thus, although the jackpot may have been awarded, the play of the game may continue
10 until all the cards are dispensed, with the draw for players being the remaining winning cards. Alternatively, the game could be stopped as soon as the jackpot card is dispensed, or after all winning cards have been redeemed.

As mentioned above, there may be more than one jackpot card in a gaming set. One reason for including additional jack-pot cards would be to prevent a
15 player from holding a jackpot card after receiving it. In a game where there is only one jackpot card the player receiving it would be inclined to hold the card while the game continued and the jackpot increased. This could be unfair to fellow players who would not know that they are no longer competing for the jackpot. In a game with two or more jackpot cards, the player receiving the first card would be inclined
20 to turn it in rapidly so that another player would not get the other jackpot card and turn it in first. If there were two or more jackpot cards, the jackpot could be restarted after each jackpot card was redeemed.

It would also be possible to address the problem of a player holding the jackpot card by providing a time or current jackpot value stamp on the card. Thus, a player would only receive the jackpot value at the time the card was issued. Alternatively, the dispensing unit could read or scan the card as it was dispensed, thereby insuring detection of the jackpot card. With electronic cards, this detection would preferably occur automatically.

In the preferred embodiment, the control system may be connected to a large number of dispensing units. The control system, using identification codes and software, is able to segregate these dispensing units into various groups of one or more machines. Each group can then be used to play an independent game. Thus, if there are twenty-one dispensing units connected to the control system, they may be divided into two groups of five, a group of ten, and a group of one. Each group would then have an independent jackpot display and separate gaming set. Preferably, of course, the group with ten dispensing units would be used with a gaming set having ten times as many cards as the gaming set for the group with one dispensing unit.

In a progressive game it can be desirable to link multiple machines, and therefore more players, in a single game because the associated potential jackpot will generally go up with the number of cards making up the game. For instance, if each dispensing unit will hold 4,000 cards, then the group including ten dispensing units can be filled with a gaming set including 40,000 cards. On average, in a game with just one jackpot card, the jackpot will get to a value ten-times larger before the

jackpot card is dispensed in a 40,000 card game than would be the case with a 4,000 card game.

In the preferred embodiment, the operator is provided with complete flexibility to control the parameters of the jackpot using the control system. In particular, the operator of the game can, using the software running on the control system, select the initial value of the jackpot, i.e., \$0 or \$500. In the preferred embodiment the operator is also able to select an increment percentage for each sale of a pull-tab card. Such values might range from a few percent to 25-percent or more. If the value was 10-percent, then for \$1 cards the jackpot would be increased by 10¢ for every pull-tab card sale. The values are selected to make the game appeal to players and maintain a profit for the operator. Thus, a large initial jackpot value may be used in conjunction with a smaller percentage increment. On the other hand, a large percentage increment may be used with a small initial value. The control system is also able to track total sales and various auditing data from the dispensing units.

While the invention has been disclosed in its preferred form, the specific embodiments thereof as disclosed and illustrated herein are not to be considered in a limiting sense as numerous variations are possible. Applicant regards the subject matter of the invention to include all novel and non-obvious combinations and subcombinations of the various elements, features, functions and/or properties disclosed herein. No single feature, function, element or property of the disclosed embodiments is essential. The following claims define certain

combinations and subcombinations which are regarded as novel and non-obvious. Other combinations and subcombinations of features, functions, elements and/or properties may be claimed through amendment of the present claims or presentation of new claims in this or a related application. Such claims, whether they are broader,
5 narrower or equal in scope to the original claims, are also regarded as included within the subject matter of applicant's invention.